Montana Board of Oil and Gas Conservation
Environmental Assessment

Operator: Hunter Energy, LLC .
Well Name/Number: Dutton 32-21-11
Location: NW SE, Lot 11 Section 21 T15N R30E
County: Garfield **, MT; Field (or Wildcat)** Cat Creek

Air Quality

(possible concerns)
Long drilling time: No, 4 to 5 days drilling time.
Unusually deep drilling (high horsepower rig): No, 1500' TD.
Possible H2S gas production: No H2S anticipated.
In/near Class I air quality area: No Class I air quality area.
Air quality permit for flaring/venting (if productive) Yes, DEQ air quality permit required under 75-2-211.

Mitigation:
X Air quality permit (AQB review)
__ Gas plants/pipelines available for sour gas
__ Special equipment/procedures requirements
__ Other:_____
Comments: No special concerns – using small rig to drill to 1500' TD.

Water Quality

(possible concerns)
Salt/oil based mud: No, surface hole will be drilled with freshwater. Mainhole will be drilled with freshwater drilling fluids.
High water table: Possible high water table.
Surface drainage leads to live water: Yes, closest live water is the Musselshell river about 1/8 of a mile to the south, 3/16 of a mile to the west and ¼ of a mile to the north from this location.
Water well contamination: No water well contamination, nearest water well is about 1/4 of a mile to the northwest from this location. Depth of this well is 1200' in the 3rd Cat Creek Formation. This well will drill surface casing hole with freshwater to 300' and cement the surface casing to surface. If productive 5 ½" casing will be run to total depth and cemented to surface. The 3rd Cat Creek Formation will be covered with cement if casing is run and if the well is plugged the 3rd Cat Creek Formation will have a cement plug set across the formation.
Porous/permeable soils: Yes, silty sandy soils.
Class I stream drainage: No Class I stream drainage.

Mitigation:
X Lined reserve pit
X Adequate surface casing
__ Berms/dykes, re-routed drainage
__ Closed mud system
__ Off-site disposal of solids/liquids (in approved facility)
__ Other: _____

Comments: 300' of surface casing cemented to surface adequate to protect freshwater zones. Also, fresh water mud system to be used on surface hole. Drilled

cuttings and mud solids will buried in pit after drilling fluids have evaporated. Pit will backfilled when dry. Distance from live water should mitigate any concerns from surface water contamination. No concerns.

Soils/Vegetation/Land Use

(possible concerns)
Steam crossings: None
High erosion potential: No, small cut, up to 1.0' and small fill, up to 0.7', required.
Loss of soil productivity: No, location will be restored after drilling, if nonproductive. If productive unused portion of drillsite will be reclaimed.
Unusually large wellsite: No, 150'X240' location size required.
Damage to improvements: Slight, surface use grassland at the edge of an irrigated hay field.
Conflict with existing land use/values: Slight.

Mitigation
__ Avoid improvements (topographic tolerance)
__ Exception location requested
_X_ Stockpile topsoil
__ Stream Crossing Permit (other agency review)
_X_ Reclaim unused part of wellsite if productive
__ Special construction methods to enhance reclamation
__ Other _____

Comments: Access will be from existing county road and existing oil field graded road to existing trails. Short access road to be built from trail access into this location, about 1/8 of a mile. No special concerns.

Health Hazards/Noise

(possible concerns)
Proximity to public facilities/residences: Closest residence is about 3/8 of a mile to the west northwest of this location.
Possibility of H2S: None anticipated.
Size of rig/length of drilling time: Small drilling rig/short 4 to 5 days drilling time.

Mitigation:
_X_ Proper BOP equipment
__ Topographic sound barriers
__ H2S contingency and/or evacuation plan
__ Special equipment/procedures requirements
__ Other:_____

Comments: Adequate surface casing and operational BOP should mitigate any problems. No concerns.

Wildlife/recreation

(possible concerns)
Proximity to sensitive wildlife areas (DFWP identified): None identified.
Proximity to recreation sites: None identified.
Creation of new access to wildlife habitat: No, existing access.
Conflict with game range/refuge management: None identified in the area.
Threatened or endangered Species: Species identified as threatened or endangered are the Pallid Sturgeon, Interior Least Tern, Piping Plover and Black-Footed Ferret.

Mitigation:
__ Avoidance (topographic tolerance/exception)
__ Other agency review (DFWP, federal agencies, DSL)
__ Screening/fencing of pits, drillsite
__ Other: _____
Comments: Private surface lands at this location. Sufficient distance from well to river to prevent surface water contamination. Location adjacent to hay field should not interfere with Ferrets, Plovers or Least Terns. No concerns.

Historical/Cultural/Paleontological

(possible concerns)
Proximity to known sites None identified
Mitigation
__ avoidance (topographic tolerance, location exception)
__ other agency review (SHPO, DSL, federal agencies)
__ Other:_____
Comments: Private surface lands. No concerns.

Social/Economic

(possible concerns)
__ Substantial effect on tax base
__ Create demand for new governmental services
__ Population increase or relocation
Comments: No concerns. Well is a development well within the Cat Creek Oil Field.

Remarks or Special Concerns for this site

Well is a 1500' Swift Formation test in the Cat Creek Oil Field.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected. Some short term impacts will occur. Well is within the Cat Creek Oil Field that has been drilled since 1920's and produced oil ever since.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): \s\Steven Sasaki
(title:) Chief Field Inspector
Date: March 15, 2010

Other Persons Contacted:

Montana Bureau of Mines and Geology GWIC website

(Name and Agency)
Garfield County water wells
(subject discussed)
March 15, 2010
(date)

US Fish and Wildlife, Region 6 website
(Name and Agency)
ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA COUNTIES, Garfield County
(subject discussed)

March 15, 2010
(date)

If location was inspected before permit approval:
Inspection date: _____
Inspector: __ _____
Others present during inspection: __ _____